

REMARKS

As an initial matter, the Applicants would like to thank the Examiner for indicating allowable subject matter in claims 6-8. The Applicants also thank the Examiner for approving the Drawings submitted July 9, 2001, acknowledging Applicants' claim to foreign priority, and considering the Information Disclosure Statements submitted on October 12, 2001 and October 15, 2003.

Claims 1 and 3-9 remain pending in the application. Claim 2 has been canceled. Claims 10-13 are newly added. Reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

The present invention relates to an automatic surveying system which can electrically read a scale indicated on a graduated face of a level rod. The system includes a telescopic optical system, and an image pickup device that picks up an image of a graduated face of a level rod to which the telescopic optical system is to be collimated and converts the image into image data. The automatic surveying system also includes a memory which stores recognition data for recognizing a pattern, numbers, and/or scale calibrations provided on the face of the level rod. The automatic surveying system also includes an analyzing device that analyzes and recognizes the picked-up image based on the picked-up image data and the recognition data, in order to obtain a measurement.

With a conventional digital level, a special-purpose level rod or staff must be used

with the level, because the level is incapable of recognizing the scale or numbers on a general-purpose level rod or staff. However, the present invention eliminates this drawback and allows different kinds of general-purpose level rods or staffs to be used with a digital level by providing a memory which can store recognition data for a plurality of different kinds of general-purpose level rods. The recognition data used to recognize a picked-up image corresponds to the kind of level rod selected by a user.

In the Office Action of July 15, 2004, claims 1-5 and 9 were rejected under 35 U.S.C. §102(e) as being anticipated by Kinoshita (U.S. Patent No. 6,108,920). Claim 1 is currently amended to incorporate the features of claim 2, but in a more clearly defined manner. Claim 1 as currently amended recites that the recognition data corresponds to a plurality of different kinds of level rods, that the automatic surveying system comprises a selector for selecting one of the kinds of level rods, and that the analyzer recognizes the picked-up image based on recognition data corresponding to the kind of level rod selected. Support for these features can be found throughout the specification, including *inter alia* page 3, lines 5-14; page 12, line 23 to page 13, line 13; and page 47, line 15 to page 50, line 7. Applicants respectfully submit that such features are not disclosed by Kinoshita.

Kinoshita relates to an electronic level which is able to discriminate graduated numerical values marked on a collimated leveling rod irrespective of the distance between

a telescope and the leveling rod. See col. 1, lines 6-10 and 55-59. The level includes a memory (33) which stores recognition data of numerical values provided on the leveling rod (value pattern data). See col. 5, lines 19-25. However, the recognition data stored in the memory of Kinoshita's level corresponds to only one kind of level rod. In particular, the single level rod of Kinoshita contains large and small graduated numerical values A and B.

Furthermore, Kinoshita's electronic level does not include a selection device for selecting different kinds of level rods. Therefore, the Applicants submit that Kinoshita fails to disclose that the "recognition data corresponds to a plurality of different kinds of level rods" or "a selector for selecting one of the plurality of different kinds of level rods" as recited in claim 1. Accordingly, the rejection of claim 1 under 35 U.S.C. §102(e) is improper, and withdrawal thereof is respectfully requested. Dependent claims 3-5 and 9 are also submitted to be in condition for allowance at least in view of their dependence on claim 1.

In the Office Action of July 15, 2004, the Examiner indicated that Claim 6 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 has been rewritten in independent form including all of the limitations of claims 1 and 3. Therefore, claim 6 is submitted to be in condition for allowance. Dependent claims 7, 8 and 10-13 are also submitted to be in

condition for allowance at least in view of their dependence on claim 6. Newly added claims 10-13 recite features similarly recited in claims 3-5 and 9.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

SUMMARY AND CONCLUSION

Entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicant has made a sincere effort to place the present invention in condition for allowance and believes that he has now done so. Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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